

**BALANCED SCORECARD BSC AND EUROPEAN FOUNDATION
FOR QUALITY MANAGEMENT EFQM, COMPARATIVE
AND INTEGRAL APPROACH**

**BALANCED SCORECARD BSC I EVROPSKA FONDACIJA
ZA UPRAVLJANJE KVALITETOM EFQM, KOMPARATIVNI
I INTEGRALNI PRISTUP**

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Abstract

Traditional financial accounting in enterprises over time has revealed its shortcomings in the rigid servicing of information management needs, which certainly influenced the vitality of operations. The efforts of academic experts in this field are focused on the definition of independent, complete systems that meet contemporary needs. The modern accounting concept of enterprise access to information packages in the environment imposes the need for a strategic accounting upgrade that will pedantically update financial, non-financial, internal and external information from the environment. In this way, it wants to establish a proper balance of cooperation with stakeholders through making useful business decisions. This paper focuses on analyzing and comparing the strategic models (Balanced Scorecard and Business Excellence Model) that are accounted for the aforementioned needs. Through the scientifically established model valorization based on the case study in our work, our goal is to present the features of full model architecture, translate its application through a fictitious example, and thus observe the observations through the themes of evaluation and possible integration or fusion of the model. The results and attitudes that this work represents can serve as a further scientific and practical recommendation for the adoption of these models.

Key words: *Balanced Scorecard, Business Excellence Model, performance management.*

Sažetak

Tradicionalno finansijsko računovodstvo u preduzećima tokom vremena otkrilo je njegove nedostatke u rigidnom servisiranju potreba upravljanja informacijama, što je svakako uticalo na vitalnost poslovanja. Napori akademskih stručnjaka u ovoj oblasti su fokusirani na definisanje nezavisnih, kompletnih sistema koji zadovoljavaju savremene potrebe. Savremeni računovodstveni koncept pristupa preduzeća informacionim paketima u okruženju nameće potrebu za unapređenjem strateškog računovodstva koji će pedantno ažurirati finansijske, nefinansijske, interne i eksterne informacije iz okruženja. Na ovaj način želi da uspostavi odgovarajuću ravnotežu saradnje sa zainteresovanim stranama

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kroz donošenje korisnih poslovnih odluka. Ovaj rad se fokusira na analizu i poređenje strategijskih modela (Balanced Scorecard i Model poslovne izvrsnosti) koji se uzimaju u obzir za gore navedene potrebe. Kroz naučno utemeljenu valorizaciju modela zasnovanu na studiji slučaja u našem radu, naš cilj je da predstavimo karakteristike potpune arhitekture modela, prevedemo njegovu primenu kroz fiktivni primer, i na taj način posmatramo zapažanja kroz teme evaluacije i moguće integracije ili fuzije modela. Rezultati i stavovi koje ovaj rad predstavlja mogu poslužiti kao dodatna naučna i praktična preporuka za usvajanje ovih modela.

Ključne riječi: *Balanced Scorecard, model poslovne izvrsnosti, upravljanje performansom.*

1. INTRODUCTION:

The modern business environment is characterized by a strong movement of parameters that leave a mark on the company that operates in it. Official studies show that traditional performance measures, based on management accounting systems are not suitable. For example, Ghaleyini and Noble (1996) identified eight general constraints on traditional performance metrics based on cost accounting; use only "lag" indicators, are not incorporated in the strategy, they are difficult to implement in practice and tend to be inflexible and fragmented, contradictorily accepted continuous improvement, omitting the need for consumers. [1] The focus is mainly on increasing productivity, financial and internal information, which in turn causes distortion of perception in terms of quality, external orientation, clear role of management accounting, etc. Professional findings indicate that non-financial criteria, on average, account for 35% of investors' decision. For 70% of investors, 30% of their decisions are based on non-financial performance. These criteria are already used as a good prediction of the financial situation and have a significant impact on the price of the shares. [2] In newer conditions, the company's modern metering device must demonstrate compatibility in capturing and processing information of various formats, financial and non-financial, internal and external. Any discrepancy in the dissemination of this information may be the reason of the difficult or unsuccessful affirmation of potential benefits to the enterprise or the occurrence of loss or damage therein. Bearing in mind, managerial accounting seeks to create a modern accounting denture, a modality that will aggregate information from the environment, sort it out and process it in accordance with the company strategy, all with the goal of correct decision making and cooperation with the stakeholders that will bring financial and non-financial business attractive "fruits".

This paper deals with the analysis of two modern strategic accounting concepts of enterprise performance management, the Business Excellence model and Balanced Scorecard. The reasons for choosing these two models relate primarily to the wide acceptability of the business auditorium where they are recognized as special tools in many countries, including the US, European and Asian countries. Through the scientifically established valorization of the model based on the case study in our work, our goal is to present the features of full model architecture, translate its

application through a fictitious example, and thus observe the observations through the themes of evaluation and possible fusion of the model. The paper could serve as a contribution to the modern business paradigm of measuring the performance of the company and as a foundation that will influence the proper design of domicile business practice in the implementation of these models.

For practical conveniences, the introductory part of the paper contains the Rolls Royce case study case, which is a convenient material for further analysis of these two models. The next sequence that relates to BEM model research involves in addition to theoretical support and implementation of the case study through the model architecture. Also, the paper also contains Balanced Scorecard analysis according to the previous model's agenda. The final part involves examining their strengths and weaknesses in order to obtain an appropriate scientific study to form an integrative concept, removing their deficiencies and combining their benefits.

2. BEM MODEL OF STRATEGIC PERFORMANCE MANAGEMENT

The European Foundation for Quality Management (EFQM) platform, specifically the Business Excellence Model (BEM), is a Japanese Total Quality Management (TQM) model.

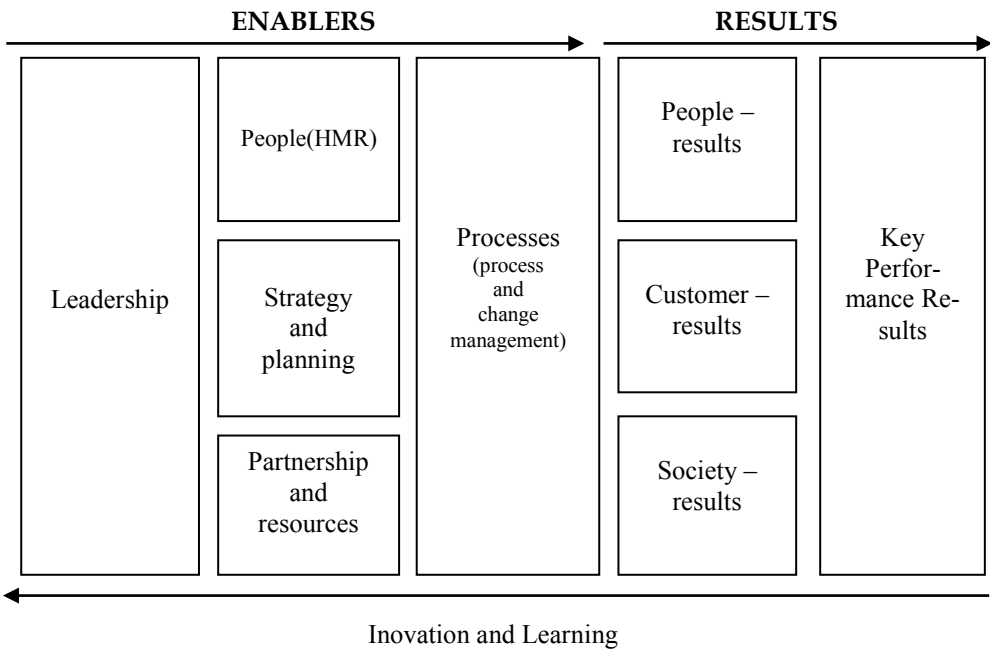
EFQM's business excellence model was created in 1992 and developed by the European Foundation for Quality Management (EFQM). This model, as well as its American counterpart The Malcolm Baldrige Quality Award, was not primarily developed as a performance measurement framework, but for awarding European Quality Awards. However, as it nevertheless includes many performance dimensions that are not even covered in the Balanced Scorecard, which we will further deal with, EFQM's business excellence model is widely used in large and small, private and public European companies as a system of determining organizational performance. Based on TQM principles, its tendency is to bring the company of excellence closer in terms of business. The configuration of the indicators that includes this model, according to the EFQM philosophy, defines the actual excellence. This model illuminates elements that affect performance improvement and indicates the results to be measured. The model emphasizes self-evaluation and planning improvement, and is based on nine criteria, as shown in Review 1. [3] The model is applicable to all types of organizations, both profitable and non-profit, using a common business language for all business structures.

The purpose of the EFQM model is to provide a systematic overview of performance management. It is a practical tool that can be used in various ways: as a self-assessment tool, a benchmark tool with other organizations, a tool that can identify areas in the improvement company, it can serve as the basis for a common language and a way of thinking in an enterprise, and as a structure for a management system organizations. [4]

BEM is a handy tool that offers several advantages: [5]

1. The model is regularly reviewed and updated, including contributions, proposals by EFQM consultants.
2. Provides a wide set of sub-criteria for precisely defining each criterion.
3. The tendency of the model is to be an adequate instrument for comparing the given organization and its competitors in order to achieve a sustainable competitive advantage.
4. It does not stand out and the model is not contrary with ISO standardization and with many representative certifications that companies use.[6]

Figure 1: BEM (EFQM) Business Excellence model



Source: Motherly online representation EFQM

The model enables the assessment of the relative performance of the organization in the field of generators (factors) and results. The above nine criteria are used to estimate the overall performance of the company (by calculating the number of points), each area of the criteria having its own "weight". The method of calculating credits includes a universal scoring and weighting system (which changes occasionally) for all types of organizations, regardless of size or activity. This ensures that an organization can compare its score (score points) with other benchmarking organizations or with its previous results. The model provides an assessment of the current state and provides an opportunity to evaluate relative performance (compared to competition and previous business), points to the causes of poor perfor-

mance, but does not provide an answer to the question of how to improve the bad result. [7]

Based on Review 1. it can be noted that leadership, which affects people, policies, strategies and resources, realizes certain processes, the results of which are employee satisfaction, customer satisfaction and impact on the community, which ultimately determines business results, i.e. organizational performance. The arrows in the model emphasize its tendency, i.e. show that innovation and learning influence the promotion of drivers, which then lead and improved results. Table 1 presents a fictitious implementation of this model at Rolls-Royce.

Rolls-Royce [8] was founded by Henry Royce and Charles Rolls in 1904 and soon became one of the most successful automobile manufacturers. In 1914, at the beginning of the First World War, the company first designed the aero engine. Since then, the production of aero engine has become the core business of the company. They continued to produce cars, but only for an exclusive and rich clientele. In 1973, the automotive division of Rolls-Royce Motors detached itself from the aero sector. In 1987, the company was privatized by the British Government. It is listed on the London Stock Exchange and its shares hold almost two million shareholders. The company has become the second largest engine manufacturer in the world. The company owns (when speaking of the Aero Division) four business areas, civil aviation, defense aviation, energy generators and submarine facilities. In the late 1990s, Rolls-Royce is developing a service concept. They have changed the strategy from a manufacturer and a motor engineer to a company that collects its revenues by offering post-sale services. When a consumer buys a motor, Rolls-Royce offers him a maintenance contract. The user must pay the maintenance fee after the flight time (in fact, while the engine is running). This policy is called "Power by Hour". In turn, Rolls-Royce maintains engines and replaces it when needed. Although the engines are sold at lower margins or even at cost, the post-sales service provides the company with revenues over the lifetime of the engine. In 1999, Rolls-Royce created a joint venture called Data Systems & Solutions with Science Applications International Corporation (SAIC). The goal was to integrate the Rolls-Royce experience with engines with IT knowledge systems. Engine Health Management (EHM) (Engine Health Management) allows Rolls-Royce to collect engine data during flight. In this way, they can anticipate and plan repair of the engine or replacement, monitor performance, detect anomalies and provide online solutions. Rolls-Royce has a wide range of service offerings, ranging from the so-called. global overhaul networks, secured motor support, logistics and engineering support. The company's main competitors are General Electric Aviation, Pratt & Whitney and other major manufacturers of aero engines in the world. The main challenge in the future is to remain innovative and maintain technological leadership in relation to rivals. Also, it is very important to keep existing customers, in addition, create several opportunities to attract new ones. The fate of the future is "Turn the service into a growth engine"

Table 1. EFQM model (Rolls-Royce)

Criteria	Performance measurement	Criteria	Performance measurement
Leadership	<ol style="list-style-type: none"> Employee evaluation of management #Hours of training / employees Growth of after-sales services Share of after-sales revenues in total revenues 	People results	<ol style="list-style-type: none"> Employee satisfaction Retention rate
People		Customer results	<ol style="list-style-type: none"> Customer satisfaction with service Customer perceived value of products
Strategy	<ol style="list-style-type: none"> Growth of after-sales services Share of after-sales revenues in total revenues 	Society results	<ol style="list-style-type: none"> #layoffs CO2 emission
Enablers			
Partnerships & Resources	<ol style="list-style-type: none"> Buyer-supplier partnership levels Inventory levels Waste levels 	Business results	<ol style="list-style-type: none"> Return of investments Revenue growth Market share in civil aerospace sector Market share in defense aviation sector Market share energy generation sector Market share in marine propulsion sector
Processes, products & services	<ol style="list-style-type: none"> #new products to market Range of products Number of prototypes Effectiveness of production schedule 		
			Results

Source: Adapted towards Vansteenbrugge, r. 57

3. BALANCED SCORECARD, CONCEPTUAL BASICS

The purpose of the Balanced Scorecard model is to perform the proper translation of the strategy into a set of performance measures. It is a framework with a set of financial and non-financial measures selected to help the company in implementing its key success factors, defined through the company's vision. [6] Robert Kaplan, Harvard Accounting professor and consultant David Norton developed the concept called Balanced Scorecard in 1992 [9], and later in 1996, summarized their study in *The Balanced Scorecard*. Since that time, over half of all organizations from the Fortune 1000 list have adopted the Balanced Scorecard. Implementation of this concept in a profitable and non-profit sector can be effectively implemented. Balanced Scorecard is so accepted and effective that Harvard Business Review has ranked it as one of the 75 most influential ideas of the twentieth century. [10]

The contemporary metrics of the BSC Performance Measure, in addition to the traditional, financial palette of indicators, include the whole system of perspectives that relate to the perspective of consumers, internal business processes and the perspective of innovation and learning. In Review 2, we will recognize a correlation thread that runs from the perspective of innovation and learning to a financial perspective.

At the beginning of the work we said that it is necessary to rigorously describe the strategy through the very measures of performance, that is, the measures in the BSC are strategically specific for each organization. In addition, we encounter their neat causality that stretches in the value chain of perspectives. The financial perspective has its support in the perspective of consumers, because their satisfaction strongly defines growth in sales and revenue. The quality of products as a determinant of consumer satisfaction depends on the quality of internal business processes. The basis of the infrastructure of these perspectives are innovation and learning. In the popular book *Balanced Scorecard, step by step*, Paul R Niven says that the measures you are developing in this perspective triggers all the other measures in your scorecard.

Table 2. Causative-effect performance measures

Perspective	Measures
Inovations and learning	Skills and training of employees, time spent on education of employees
Internal business processes	Production cycle, product quality improvement
Consumers	Consumer satisfaction
Financial perspective	Growth of sales volume, Growth of income

Source: Adapted towards Anthony, N.R., Govindarajan, str. 465. [11]

Table 2 provides us with a fictitious implementation of this model in the case of a Rolls Royce case study. The Turn service into growth engine vision is disaggregated through four perspectives with a stable indicator system. The presence of the differentiation strategy in this company strongly defines a range of performance measures in the design of its BSC. [12] Recognizing the subtle demands of consumers reflects the trend of market development in the financial perspective as an initiative, as a good basis for increasing revenue and business gains. The joint venture of the company on the computer platform of cooperation is a key resource for achieving the improvement of post-sales service EHM (Engine Health Management). This requires a careful analytic of the satisfaction of our clients with software treatment. In the framework of internal business processes, in addition to paying attention to quality, the company strives to synchronize the production cycle according to the target time in its scorecard. IT sector for this company is becoming a powerful innovative field for strengthening and maintaining technological leadership. In this respect, the company monitors the mobility of IT staff in the organization, combines the ideas of all workers to obtain quality suggestions of multidisciplinary knowledge.

Table 2. Balanced Scorecard on the example of Rolls Royce

Goals	Inititives	Performance measurement
I Financial Perspective		
1. Larger wealth for shareholders	Cost management and unused capacity	Return on assets
2. Securing growth	Build firm relationships with customers	Growth of income Operating profit Productivity, efficiency
II Consumer Management		
1. Greater market share	Identify future customer needs	Percentage of market share
2. Consumer satisfaction	Extension of post-sales service "Power by hour" on the EHM software platform	Percentage of satisfied consumers (by surveys) Number of consumer complaints Quantum communication with business clients Number of new customers % percentage of sales realization at the request of new customers
3. Obtaining new clients	More powerful adaptation of products according to customer demand	
III Internal business processes		
1. Improve production capabilities	Production teams for the implementation of advanced controls	Percentage of process with advanced control Percentage of deadlock in production
2. The efficiency of the production scheme	Stronger synchronization of production sequences	
2. Improve product quality	Identify key causes of problems and improve quality	Percentage of defects
3. Shorter production cycle time	Reducing activities that do not add value Increase the efficiency of the production scheme through a stronger synchronization of production sequences	Average production cycle time Quantum of deadlock in production Average time of prototype production
4. Timely deliveries	Extension of network overhaul (service and production centers, technicians and engineers from around the world)	Percentage of timely delivery
IV Innovation management		
1. Versatile trained employees	Employee training programs	Percentage of employed with multiple skills
2. Improving information systems	Development of Data Systems & Solutions Continuous EHM upgrade	Number of IT engineers Quantum supplementation of software scripts
3. Connecting employees with company goals	Participation of workers and program of suggestions in team work	Number of suggestions received Overview of employee satisfaction

Source: Adapted to Horngren, Ch., Bhimani, A., Datar, S and Foster, G

4. BALANCED SCORECARD & BUSINESS EXCELLENCE MODEL - INTEGRAL APPROACH

Contemporary theory model for the management of metrics of the company, makes an adequate typology among them in two groups. The first group of models emphasizes self-evaluation, such as the Deming Award [14], the European Foundation for Quality Management [15]. The second group defines a system that deals with the evaluation and improvement of a complete business activity such as Balanced Scorecard. In order to consider the possibility of crossing the model into a single construction, where the scientific public came in, it is necessary to make positive and negative reviews of these models. In this way, the possibility of analyzing the field of useful overlapping of the model and confirmation of the above-mentioned typology opens.

4.1. Comparison of BSC and BEM models

The positive qualifications of the Balanced Scorecard are based on a clearly adopted vision and strategy, in addition, consistency in monitoring the strategy. The main line of decoration of this model is the developed relationship between the metric and the business unit strategy. It is pointed out that BSC affirms strong focus on critical business goals in a competitive, competitive environment. It is distinguished by a disciplined and hierarchically implemented communication process. We can notice that Balanced Scorecard integrates performance targets at the appropriate level. It represents an instrument that examines cause-effect relationships. What is frowning upon him is the lack of expressing the interests of all stakeholders, which is the basis for the development of supplementary models. It is incompatible for benchmarking because it contains specific measures inherent in the selection of the company, there is a lack of leadership for management, it contains an extensive metric, there is a lack of employee awareness of the model or failure to communicate information for all employees. One of the disadvantages is the construction of this tool before for the control function, but for the improvement function as well as the lack of connection quantification. [16]

The European Foundation for Quality Management, EFQM model provides a short list of indicators based on the "Good Practice" in practice. However, this model contains a higher degree of generalization, so the criteria it advocates are not specific to the company. The European Quality Foundation model has a strong sense of quality and thus enjoys a high accounting position on the hierarchical scale of the model. A systematic model that recognizes the strong and weak points of an organization contains a hierarchy of criteria, creates conditions for a comparative analysis of business processes with external business (suitable for benchmarking). It is designed to provide feedback on the results and in this way, helps improve the launcher. The weakened contours of this model speak of the absence of focus / priorities and connections, which aims to adjust to bureaucracy. EFQM is not a tool of strategic management (systematic adjustment and achievement of

goals), thus it is not a full implementation tool for the strategy. He lacks more powerful infrastructure. In addition, it does not provide instructions on how to design and perform effective performance measurement and is not suitable for communication in the company. [16]

Both models contains performance packages, advanced systems for their management and control. Segmentation of the criteria of the BSC model develops a vision and strategy in 4 perspectives that are related to causal relationships. [17] In essence, the Balanced Scorecard model helps organizations in the following six ways: [18]

1. Promotes growth; thanks to the focus on long-term strategic yields, not taking into account only short-term operational results.
2. Monitoring performance; Individual and collective results can be monitored against targeted sizes
3. Provides focus; When the measures are aligned with several critical strategies, BSC provides a focus, what is important to the company.
4. Matching goals; When you measure what is really important for success, the measures become linked and support each other. Alignment is conducted through the entire organization.
5. Clarity of objectives; The BSC helps to answer the question "How does my daily work contribution affect the goals of the organization?"
6. Accounting; Individuals are designated as the owners of the metrics to ensure clear accounting of the results.

The BEM model evaluates the company's performance based on a standard set of criteria that is identical for all companies. In this way, powerful benchmarking on a spatial (comparison with competitors) and a time basis (comparison with previous business) is enabled, which is a great advantage over the BSC model. The BEM model is based on TQM principles, while the BSC model of metrics is based on an enterprise strategy, making it flexible for implementation. Management accounting literature [19][20][21] in the assessment of the performance framework usually starts from the criteria template defined by the accounting professor at Lancaster University Oatley (1999), where he says "there are five main requirements that need to be considered in developing a governance framework performance, represented in five requirements "[22] The advantage of this" criteria mold " is that they are clear, core, in this respect we will make an assessment of these two models through the list of requirements Table 3:

x

Table 3. Comparison of BEM and BSC models through five criteria.

Requests	BEM (Business Excellence model)	BSC (Balanced Scorecard)
Goals	The goals are summarized in nine criteria, through the drivers and results. Evaluation of achievements is determined according to TQM standards set in the criteria areas.	Key objectives on the basis of the causes and consequences that are being measured; defined in four perspectives developed on the basis of the strategy. Within the perspective of management, the management defines the targeted and realized dimensions of measurable objectives.
Plans and strategies	EFQM is based on TQM principles of continuous improvement and does not have a plan to reach bureaucratically established sizes.	Depending on the strategy of the company, an appropriate metric for supporting the achievement of goals has been constructed. A metric representing a differentiation strategy, low cost or focus will be distinguished.
Satisfactory level Performance	The level of satisfactory achievement is universally defined for all types of organizations, which are regularly reviewed. .	Managers are those who determine, define the target sizes and achievements.
Award system	Awarding of recognitions, various types of benefits, awareness of rewarding is promoted.	The compensation of individuals is related to the achieved success in the implementation of the strategy measures
Feedback	The department of results gives us feedback.	We receive feedback through the learning process
characteristics		

Source: Adapted to Otley, D. (1999).

4.2.Integration of Balanced Scorecard i Business Excellence Modela

The idea for the integration of these models has come from the past, but we do not yet have a specific integral whole that includes the full construction of these models. One part of the scientific public is represented by the idea of their parallel implementation in the company. [23] [24] Looking at the characteristics of these models, we will note that Balanced Scorecard, in addition to having a more complex, elaborate infrastructure, deeply appreciates the characteristics of the organization it is applying in this respect more flexible. The downside of this model in this way prevents quality benchmarking, which is a strong side of the Business

Excellence model. The BSC model is a strategic management tool, EFQM is a model for diagnosing the current state and benchmarking. We will notice on Rolls Royce's case in our study that the BSC model does not have an environmental impact metric mechanism until EFQM owns it.

From the above, we can say that the parallel use of these models causes complexity and confusing information for managers because the same observed indicators can be presented in a different way. We can see this in Review 4. where we made a comparative overview of both implemented models with proposals for combining metrics, and based on the Rolls Royce case study in terms of perspectives. As a basal infrastructure, we will use the BSC model. Sequence (1) includes traditional financial indicators, but in the BSC model, there are clearly articulated initiatives for reaching the given sizes. By allocating the financial indicators (market indicators) of the EFQM model to the BSC model, we get the possibility of benchmarking in this field with competitors, an insight into the current situation. In sequence (2) we can see how much the BSC really appreciates the specificity of each enterprise. Concerning the Rolls Royce company, the approach to the analysis of indicators related to the functioning of the EHM program and the post-sales service "Power by Hour" is stable. When we talk about sequence (3) that relates to internal business processes, Kaplan and Norton allow the inclusion of 8 to 10 measures [25] within this perspective. This in fact tells how much the organization's strategy is firmly and comprehensively dispersed through the perspective of internal business processes, how much it has been transformed through goals and initiatives into concrete measures. On the other hand, the criteria of products, processes and services with the criteria of partnerships defines a list of indicators that can be compared to a "more advanced" example in practice. Let's also note that this would be a "cut off" categorization of the perspectives from both models, because they partly overlap. For example, some measures from the criteria of processes, products and services match the perspectives of consumer management (market indicators). Our goal is to show the combinatorics of both models in a general and plastic context. The fourth section of the perspective of the BSC model borders with the criteria of the EFQM model that refer to leadership, strategy and results related to workers. Criteria for employee strategy and results are partly overlapping with other BSC perspectives. The leadership criterion is desirable to include in our combined performance management framework as an indicator of the activities in this field. What is interesting is that the BSC does not have a perspective on the social community, it does not include parameters that will valorize the environmental impact. We noticed that the BSC model also has somewhat weaker co-operation with external stakeholders such as partners, alliances, the community (also referred to as regulatory authorities), which can certainly be extracted from the EFQM model. Section (5) would include in addition to 4 perspectives and an environmental impact perspective (monitoring metrics related to the fulfillment of legal clauses; otherwise, latent costs may arise), public relations, etc.. The advantage that EFQM model carries by itself is that it contains criteria that relate to the measure-

ment of the environmental impact. Environmental issues are mostly included through the social perspective. [26]

The simulation of our model could serve as a simple approximation of the combination of these models. Using their positive sides and eliminating their weaknesses is a reasonable and sufficient argument that these two models are used as a single strategic, aggregate framework for managing the company's performance. Also, a large part of the scientific public is stating this attitude. [27]

It is important to note that the question remains whether the integration of these two models covers all the vital areas of a company's business. There are also criticisms related to measuring intangible assets (intellectual capital) and defining such a range of indicators through strategic models. Scientific researchers suggests solutions through the integration of, for example, the BSC model and the so-called QEST generic performance measurement model suitable for evaluating software projects, [28] or linking BSC model with EFQM model, taking into account the characteristics of organizational knowledge. [29] In order for the challenge to be even greater, modern companies move from mass production to a lean production system, in which all excessive losses and activities that do not add value to the product from the perspective of the customer are mapped and eliminated. In this sense, the company is viewed holistically in the form of Value stream that starts from customer and his requirements. Such a production system additionally requires the configuration of the BSC model and its indicators for full functionality in a lean business environment. [30]

BSC

Goals	Inititives	Performance measurement	I
Financial Perspective			
1. Larger wealth for shareholders	- Cost management and unused capacity	- Return on assests - Growth of income - Operating profit	
2. Securing growth efficiency	- Build firm relationship with customers	- Productivity,	
EFQM(1)			
Business results			
	7. Return of investments		
	8. Revenue growth		
	9. Market share in civil aerospace sector		
	10. Market share in defence aviation sector		
	11. Market share in energy generation sector		
	12. Market share in marine propulsion sector	EFQM (1)	
II Consumer management			
1. Greater market share	- Identify future customer need	- Percentage of market share	
2. Consumer satisfaction satisfied	- Extension of post-sales service "Power by hour" on the EHM software platform	- Percentage of consumers (by surveys) - Number of consumer - Quantum communication	
complaints with			
Obtaining new clients	- More powerful adaptation of products according to customer demand	business clients - Number of new clients - % percentage of sales at the request of new customers	
3. realization			
BSC(2) EFQM			
Customer results	3. Customer satisfaction with service		
	4. Customer perceived value of products		

*Overview 5. Integral BSC and EFQM model in Rolls Royce case study***5. CONCLUSION**

The EFQM model consists of a nine-set set of criteria for performance evaluation that is organized in a correlation between the main elements: leadership, process, and performance. Through the manifestation of different policies and strate-

gies in the company and defined processes, results are achieved related to customers, employees and external stakeholders such as the community. On the Rolls-Royce case, the implementation of this model gives a balanced overview of the drivers and results. The Balanced Scorecard Contemporary Model develops four perspectives of Rolls Royce (Financial Perspective, Consumer Management Perspective, Internal Business Process Perspective, and Innovation Management Perspective). Analyzing the infrastructure of both models, with a free estimate, we can see that the EFQM model is more effective (it has a social community perspective than a Balanced Scorecard), while the Balanced Scorecard model is more efficient (deeper elaborates the metrics of individual business perspectives compared to EFQM). The disadvantages and advantages of both models suggest potential integration and education of a structure that manipulates the metric model in an effective and efficient way.

By integrating these two measuring mechanisms on a concrete case, we realized that their symbiosis is a powerful control panel of the company. Taking into account the specificity of the company on which the integral concept is applied, the possibility of benchmarking analysis with other companies overcomes the main weaknesses of their separate or parallel implementation. It also provides a more complete approach to measurement, all in line with the company's strategy. It is important to note that the examples for the analysis of these models are based on fictitious invention and as such are informatively limited, therefore they will not be complete as in real life. However, simulating the application of given concepts through examples can contribute to the manifestation of the goal of this paper.

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